

MFC ANYWHERE INSTALLATION MANUAL

1/3/2007 MFC ANYWHERE INSTALLATION MANUAL GENERATION III VEHICLE CONTROL SYSTEMS REV. D ISSUE 2

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1. INTRODUCTION

This document describes the installation outline and detail for the MFC Anywhere System, which is designed to provide security and multi-purpose solutions for real-time control and security management of a vehicle. The MFC Anywhere System is a new type of flexible dynamic tracker and controller system geared specifically towards car security & accessory management. Using an internet enabled computer, or internet connected smart phone or Pocket PC, the user or installer can specifically control a compatible alarm system installed in the vehicle or control accessories connected to the Side Track unit. The user can also locate the current vehicle location on a street level map as well as view and monitor other vital vehicle data. The MFC Anywhere device establishes a three-way communication with the vehicle hardware, MFC Anywhere sever and the remote user.

1.1 Disclaimer

The information contained in this document is accurate at time of release. However, as Connect2Car Inc, is committed to continued research and development activities, these specifications may change from time to time.

The present manual by Connect2Car Inc reflects the present state of the art of the products described within. We have endeavored to give a description that is as complete and clear as possible in order to make work with our products as easy as possible for you. All the same, the manual may contain technical inaccuracies and typing errors. Because of the rapid advance in the art, we must also reserve the right to incorporate technical alterations and developments without separate advance notice.

Connect2Car Inc does not give any warranty for the contents of the manual and for its continuing applicability. Nor is Connect2Car Inc. liable for any loss that might result from consultation of this manual. Particularly, Connect2Car Inc is not liable for damage, nor indirect damage (including damage caused by financial loss, and similar consequences), arising from the use or improper use of this product, not even in the case where it was pointed out to Connect2Car Inc or an agent of Connect2Car Inc that such damage might be sustained.

Contact your Connect2Car representative, should you require clarification on information contained in this document or to request of copy of the latest version of this document. You can also visit www.connect2car.com for all the latest information/product manuals and documentation.

1.2 Copyright

The MFC Anywhere System Installation Manual is Copyright by Connect2Car Inc, with all rights reserved. No part of this manual may be reproduced in any form without the prior written approval of Connect2Car Inc.

1.3 Safety Issues

It is important that you read these simple guidelines carefully before use, to ensure the safe operation of the module. The MFC Anywhere System should be installed by a professional automotive electronics installer.

The fact that there is unlimited control through the tracking software on the Connect2Car website; it could give rise to one putting the accessories in and unconditional or dangerous state. E.g. (cranking the ignition of a manual transmission vehicle in gear, disabling ignition or fuel, controlling moving parts without caution, e.g. window, door poppers, hydraulics, linear actuators, etc). Because of this unforeseen multi-functionality, Connect2Car Inc. CANNOT VALIDATE NOR ENSURE THAT ANY OR ALL SAFETY REQUIREMENTS ARE MET DURING INSTALLATION AND THEREFORE ACCEPTS NO RESPONSIBILITY FOR THE INSTALLATION OR LOSS CAUSED BY THE INSTALLATION OR USE OF THE MFC ANYWHERE SYSTEM. ANY TRACKED MISSING VEHICLES SHOULD BE REPORTED TO AUTHORITIES IMMEDIATELY. DO NOT TAKE THE LAW INTO YOUR OWN HANDS.

2. Technical Support

For all technical support, please contact Connect2Car Inc. via support@connect2car.com or call (914) 239-3829. Your questions will be prioritized and responded to in a professional and prompt manner. Please also check out the FAQ section on the website at www.connect2car.com

2.1 GLOSSARY OF TERMS AND ABBREVIATIONS

ABBREVIATION	DESCRIPTION
OEM	ORIGINAL EQUIPMENT MANUFACTURER
GND	ELECTRICAL VOLTAGE GROUND REFERENCE POINT
PC	PERSONAL COMPUTER
GPS	GLOBAL POSITIONING SYSTEM
FAQ	FEQUENTLY ASKED QUESTIONS

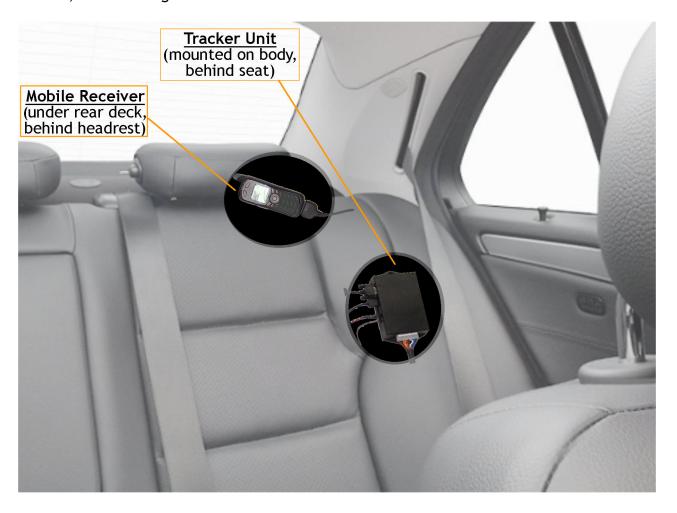
2.2 SYSTEM OVERVIEW

The user interface to the vehicle is on the internet ready computer, smart phone or Pocket PC device. The mobile device or PC acts as a tool to hold, configure and deploy the commands which are actually run in real time on the hardware controller while reporting status of activities back to the user.

Sample commands include doors lock/unlock, remote auto-start, 1 aux for trunk release (or other applicable accessories) and vehicle ignition and fuel disable/enable.

3. Mounting the Mobile Receiver & Tracker Unit

You can mount the Tracker Unit almost anywhere that is discrete and secure from potential threat. Usually you would want to mount it far away from the car alarm itself. For the mobile receiver, you would want to mount it in an area where it is accessible but not outright visible. The cable that connects the receiver and tracker unit is only 3 ft. in length, so the mobile receiver should be somewhere close to the Tracker Unit, but yet in a place where it can get good reception. Example areas: rear deck, behind rear seat, trunk, quarter panel, under the dashboard, etc... The figure below demonstrates a location for the tracker and the receiver.



You can view the cell tower signal power status as well as the GPS satellite status directly from the mobile screen, or you can also monitor from the MODEM or GPS LED's for status.

The MFC Anywhere software harnesses the power of cell tower assist in the GPS positioning. With cell tower assist, you do not need a direct sky view to get a GPS lock. So you can put the mobile phone unit in an enclosed or "not so open" location and still get good lock. Play around with different convenient areas of the vehicle. Sometimes it might take up to 10mins to reacquire a lock after you have relocated the unit.

IMPORTANT: The Mobile Receiver must always remain connected to the Tracker Unit!

4. MFC ANYWHERE features

4.1 GENERAL FEATURES:

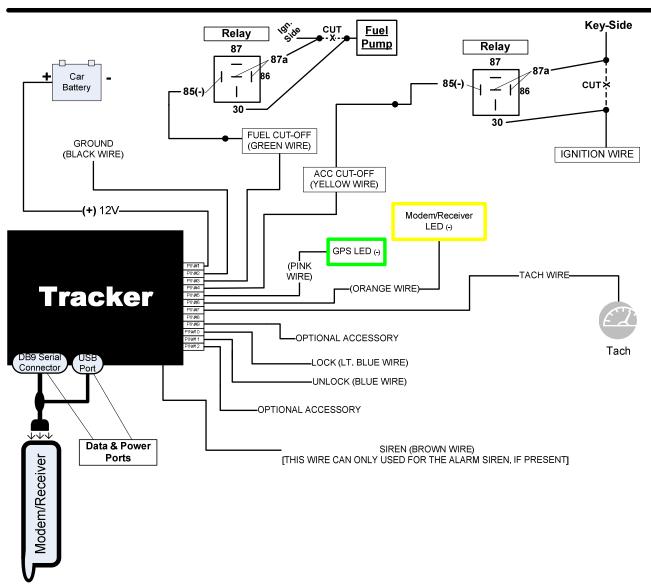
- o 8 Outputs
- Siren İnput
- Tachometer Input
- Serial Interface
- o USB charger port, for mobile receiver device with USB charging cable
- o Status/Indicator LED's showing power and active serial or functionality Data status

4.2 DETAILED SPECIFICATIONS:

Outputs	ACC CUT-OFF FUEL CUT-OFF	(Max -500mA)	
Outputs		Negative Triggers (-500mA max) Use external relays if needed.	
POWER	12-18v		
USB CHARGING	5V(max 1amp)		
Tracking Receiver	Serial Port Profile (SPP) Only Mobile GPS Receiver SIMS CHIP/CDMA Technology		
Serial Port	Mechanical: 9 pin DSUB connector (female)		
PHYSICAL DIMENSIONS TRACKER UNIT 5" x 3.75" x 1"		5" x 3.75" x 1"	

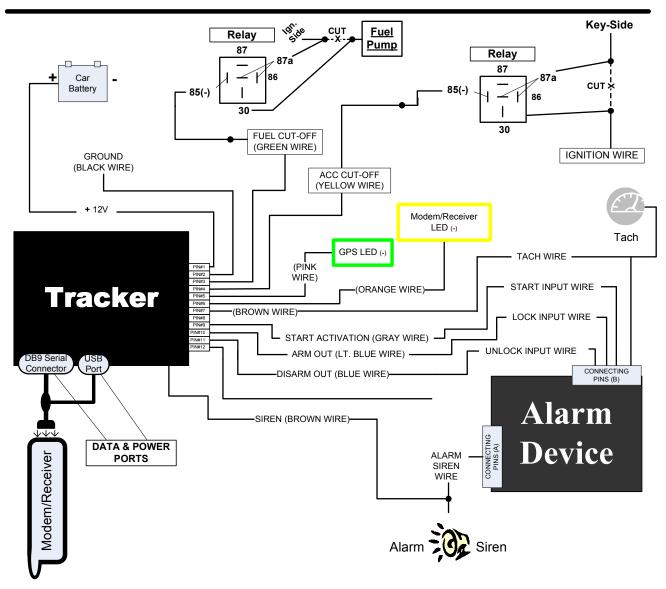
4.3 Tracking System without Alarm

_	PIN#1	RED	(+) POWER 12V DC INPUT	
	PIN#2	BLACK	(-) GROUND INPUT	
$ \mathbf{R} $	PIN#3	GREEN	(-500mA) FUEL CUT-OFF	
	PIN#4	YELLOW	(-500mA) ACC CUT-OFF	
A	PIN#5	PINK	GPS LED	
	PIN#6	ORANGE	WIRELESS MODEM / RECEIVER LED	
	PIN#7	BROWN	TACHOMETER INPUT	
K	PIN#8	N/A		
	PIN#9	GRAY	OUTPUT FOR ANY DESIRED 12 VOLT ACCESSORY	
E	PIN#10	LT. BLUE	LOCK DOORS OUTPUT	
R	PIN#11	BLUE	UNLOCK DOORS OUTPUT	
	PIN#12	PURPLE	OUTPUT FOR ANY DESIRED 12 VOLT A	CCESSORY



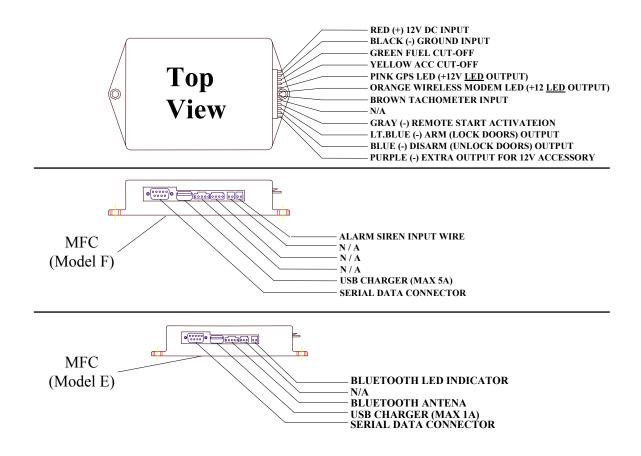
4.4 Tracking System with Alarm

T	PIN#1	RED	(+) POWER 12V DC INPUT		
	PIN#2	BLACK	(-) GROUND INPUT		
R	PIN#3	GREEN	(- 500mA) FUEL CUT-OFF		
	PIN#4	YELLOW	(- 500mA) ACC CUT-OFF		
A	PIN#5	PINK	GPS LED		
	PIN#6	ORANGE	WIRELESS MODEM / RECEIVER LED		
0	PIN#7	BROWN	TACHOMETER INPUT		
K	PIN#8	N/A			
	PIN#9	GRAY	START IGNITION (TURN ON ENGINE)		
E	PIN#10	LT. BLUE	ARM (LOCK DOORS AND ARM ALARM) OUTPUT		
R	PIN#11	BLUE	DISARM (UNLOCK DOORS AND DISARM ALARM) OUTPUT		
	PIN#12	PURPLE	SECOND EXTRA OUTPUT FOR 12 VOLT A	ACCESSORY (LIGHTS, ALARM PANIC, ETC)	



5. GENERAL WIRING HARNESS:

	Pin	Wire Color	Function/Description	
6.1a	1	RED	(+) 12V DC MAIN POWER (user 7A fuse)	
6.1b	2	BLACK	(-) CHASSIS GROUND INPUT	
6.1c	3	GREEN	FUEL CUT-OFF (+12V output to Fuel cutoff relay)	
6.1c	4	YELLOW	ACC CUT-OFF (+12V output to ACC cutoff relay)	
6.1c	5	PINK	GPS LED (+12V LED output)	
6.1c	6	ORANGE	WIRELESS MODEM LED (+12V led output)	
6.1d	7	BROWN	TACHOMETER INPUT	
6.1e	8	N/A		
6.1f	9	GRAY	REMOTE START ACTIVATION (Triggers Remote Starter) (-500mA max)	
6.1f	10	LT.BLUE	ARM (DOOR LOCK) OUTPUT (-500mA max)	
6.1f	11	BLUE	DISARM (DOOR UNLOCK) OUTPUT (-500mA max)	
6.1f	12	PURPLE	EXTRA OUTPUT FOR 12V ACCESSORY (-500mA max)	



6. CONNECTOR AND WIRING DETAILS

6.1 MAIN HARNESS 12-PIN CONNECTOR

6.1a Pin 1 - Red (+) Constant Power Input

This wire supplies the main power for the MFC Anywhere and must be fused. *Before connecting make sure P2-Black is wired to a solid chassis ground.* Connect this wire to a 12V constant battery power source.

6.1b Pin 2 - Black (-) Chassis Ground

Connect this wire to the battery negative terminal or electrical ground of the vehicle (usually the metal chassis). Make sure this wire has a solid connection and does not move around.

6.1c Pins (3-6) - Green/Yellow/Pink/Orange

These four wires are outputs from the MFC Anywhere (rated at -500mA).

- Pin 3 (GREEN) FUEL CUT-OFF use this wired to activate the fuel cut-off relay
- Pin 4 (YELLOW) ACC CUT-OFF use this wire to activate the ignition accessory cut-off relay
- Pin 5 (PINK) GPS LED connect this wire to the GPS status LED wires (This LED will light up if there is a GPS lock from the Tracking System)
- Pin 6 (ORANGE) MODEM connect this wire to the GPS modem/receiver LED wires. (This LED will light up if there is an active data connection from the Tracking system).

6.1d Pin 7 - Brown - Tachometer Input

With this wire connected to the vehicles tachometer signal wire, it will allow you to get an RPM read out on the MFC Anywhere web site, as well as monitor RPM locally from on the phone screen. The engine online/offline indictor uses the RPM to detect engine state. If engine status is not needed, this wire can be left disconnected.

6.1e Pins (9-12) Gray/Light Blue/Blue/Purple

These four wires will supply a 500ma (-) output and in most cases will require the use of external relays. You can use these to directly trigger an accessory that requires a 500ma (-) or less trigger. If you are not sure of the trigger current needed, you should connect these outputs to an external relay, where by the relay coil is grounded by this output.

- PIN 9 (GRAY) START ACTIVATION connect this wire to the engine start activation input wire on the alarm device
- PIN 10 (LIGHT BLUE) LOCK connect this wire to the arm input wire on the alarm device
- PIN 11 (BLUE) UNLOCK connect this wire to the disarm input wire on the alarm device
- PIN 12 (PURPLE) FLASH LIGHTS connect this wire to any extra component you feel is necessary. (Trunk, windows, door poppers, lights, etc... The default setup is a single pulse on this output. You can change if needed.)

6.2 DB9 SERIAL PORT

This connector is used to transfer data & commands. Connect the DB9 serial data link cable from the mobile receiver to the tracker unit.

6.3 USB PORT

This connector allows you to charge the mobile receiver & the external battery. Connect the USB cable to the USB port on the tracker unit and to the serial data link cable's auxiliary input port, labeled CHARGE on the mobile receiver.

6.4 ALARM SIREN INPUT WIRE

Connect this wire to the siren power wire from the alarm.

7. TROUBLESHOOTING

If you receive a notification error "CONNECTION TO MFC FAILED: Error opening port no cable" Do any one of the following (error message may automatically repeat and reappear):

- If physically connected to MFC:
 - Click **OK** and wait for the software to automatically reconnect.

or

- If not physically connected to MFC:
 - Click **OK** > Then **Scroll Menu** and Click **Back** > Select **SEARCH CAR** > Select **SIMULATION MODE Note:** Be sure that **'SIMULATION MODE'** is selected by pressing the down key once.

This will bring you to the **Control Screen**, where you can trigger the functions. Remember, in Simulation Mode, commands cannot not be sent.



connect2car.com

Connect2Car, Inc.

540 Nepperhan Avenue Suite 580A

Yonkers • NY • USA Tel: 914.751.6426

Fax: 914.239.3250

Connect2Car Tech Support

US: 914.239.3826

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